

## CLAIMS

1. A composition comprising a daidzein-containing substance and a strain of microorganism capable of  
5 metabolizing daidzein to equol as essential ingredients.

2. The composition according to Claim 1 wherein the strain of microorganism capable of metabolizing daidzein to equol is at least one member selected from the group consisting of Bacteroides ovatus, Streptococcus  
10 intermedius and Streptococcus constellatus.

3. The composition according to Claim 1 wherein the strain of microorganism capable of metabolizing daidzein to equol is at least one member selected from the group consisting of Bacteroides E-23-15, which has been  
15 deposited as FERM BP-6435, Streptococcus E-23-17, which has been deposited as FERM BP-6436, and Streptococcus A6G-225, which has been deposited as FERM BP-6437.

4. The composition according to Claim 1 which further contains at least one component that favors the  
20 maintenance and growth of the strain of microorganism capable of metabolizing daidzein to equol.

5. The composition according to Claim 4 wherein the component that favors the maintenance and growth of the strain of microorganism capable of metabolizing daidzein  
25 to equol is at least one substance selected from the group

consisting of galactosylsucrose, soybean-oligosaccharide, lactulose, lactitol and fructo-oligosaccharide.

6. The composition according to Claim 1 wherein the daidzein-containing substance further contains at least  
5 one member selected from the group consisting of genistein, daidzin and genistin.

7. The composition according to Claim 1 wherein the daidzein-containing substance is soya isoflavone.

8. The composition according to Claim 1 for the  
10 prevention and treatment of unidentified clinical syndrome in middle-aged to elderly women, inclusive of menopausal syndrome.

9. The composition according to Claim 8 which is in a food form.

15 10. The composition according to Claim 9 wherein the food form is selected from the group consisting of drinks, dairy products, fermented milk, bars, granules, powders, capsules and tablets.

11. The composition according to Claim 8 which is  
20 a pharmaceutical dosage form.

12. The composition according to Claim 11 wherein the pharmaceutical dosage form is selected from the group consisting of aqueous solutions, emulsions, granules, powders, capsules and tablets.

25 13. A method for prevention and treatment of

unidentified clinical syndrome or menopausal syndrome in middle-aged to elderly women which comprises administering an effective amount of the composition according to claim 1 to a middle-aged or elderly woman who needs said prevention and treatment.

14. The use of a microorganism capable of utilizing a daidzein-containing substance or daidzein to elaborate equol for the production of a composition which is effective for the prevention and treatment of unidentified clinical syndrome or menopausal syndrome in middle-aged to elderly women.

15. A composition comprising equol which is obtained by causing a strain of microorganism capable of metabolizing daidzein to equol to act upon a daidzein-containing substance.

16. The composition according to Claim 15 wherein the strain of microorganism capable of metabolizing daidzein to equol is at least one member selected from the group consisting of Bacteroides ovatus, Streptococcus intermedius and Streptococcus constellatus.

17. The composition according to Claim 15 wherein the strain of microorganism capable of metabolizing daidzein to equol is at least one member selected from the group consisting of Bacteroides E-23-15, which has been deposited as FERM BP-6435, Streptococcus E-23-17, which

has been deposited as FERM BP-6436, and Streptococcus  
A6G-225, which has been deposited as FERM BP-6437.

18. The composition according to Claim 15 which  
further contains at least one component that favors the  
5 maintenance and growth of the strain of microorganism  
capable of metabolizing daidzein to equol.

19. The composition according to Claim 15 wherein  
the component that favors the maintenance and growth of  
the strain of microorganism capable of metabolizing  
10 daidzein to equol is at least one substance selected from  
the group consisting of galactosylsucrose, soybean-  
oligosaccharide, lactulose, lactitol and fructo-  
oligosaccharide.

20. The composition according to Claim 15 wherein  
15 said daidzein-containing substance further contains at  
least one member selected from the group consisting of  
genistein, daidzin and genistin.

21. The composition according to Claim 15 wherein  
the daidzein-containing substance is soya isoflavone.

20 22. The composition according to Claim 15 for the  
prevention and treatment of unidentified clinical syndrome  
in middle-aged to elderly women, inclusive of menopausal  
syndrome.

23. The composition according to Claim 22 which is  
25 in a food form.

24. The composition according to Claim 23 wherein the food form is selected from the group consisting of drinks, dairy products, fermented milk, bars, granules, powders, capsules and tablets.

5        25. The composition according to Claim 22 which is a pharmaceutical dosage form.

26. The composition according to Claim 25 wherein the pharmaceutical dosage form is selected from the group consisting of aqueous solutions, emulsions, granules,  
10    powders, capsules and tablets.

27. A method for prevention and treatment of unidentified clinical syndrome or menopausal syndrome in middle-aged to elderly women which comprises administering an effective amount of the composition according to claim  
15    15 to a middle-aged or elderly woman who needs said prevention and treatment.

28. The use of a microorganism capable of utilizing a daidzein-containing substance or daidzein to elaborate equol for the production of a composition which is  
20    effective for the prevention and treatment of unidentified clinical syndrome or menopausal syndrome in middle-aged to elderly women.

29. A method of producing equol which comprises causing a strain of microorganism capable of metabolizing  
25    daidzein to equol to act upon daidzein.

30. The method according to claim 29 wherein the strain of microorganism capable of metabolizing daidzein to equol is at least one member selected from the group consisting of Bacteroides ovatus, Streptococcus  
5 intermedius and Streptococcus constellatus.

31. The method according to Claim 29 wherein the strain of microorganism capable of metabolizing daidzein to equol is at least one member selected from the group consisting of Bacteroides E-23-15, which has been  
10 deposited as FERM BP-6435, Streptococcus E-23-17, which has been deposited as FERM BP-6436, and Streptococcus A6G-225, which has been deposited as FERM BP-6437.

32. A strain of microorganism selected from the group consisting of Bacteroides E-23-15, which has been  
15 deposited as FERM BP-6435, Streptococcus E-23-17, which has been deposited as FERM BP-6436, and Streptococcus A6G-225, which has been deposited as FERM BP-6437.